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*"To the solid ground
Of Nature trusts the mind which builds for aye."*—WORDSWORTH

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THE UNIVERSITIES BILL

VERY little light has been thrown on the future of Oxford and Cambridge by the discussions in the House of Commons last week and this week. Harassed as they are by the difficulties of the Eastern question, our legislators could not, perhaps, be expected to devote serious thought to the fortunes of higher education in England, but as Mr. Knatchbull-Hugessen said, the debate was "certainly more suited to the debating societies of Oxford and Cambridge than to the arena of the House of Commons." Lord F. Hervey, who opened it, had little weightier to remark than that Mr. Grant Duff was "no doubt a very learned and superior person," and Mr. Grant Duff's chief contribution was the venerable witticism that Lord F. Hervey ought to be carried round the country by himself and other advanced reformers, as "the shocking example" of the results of the present system. Mr. Trevelyan delighted the House and the country by the amusing patriotic statement that "It would not be possible to find in any European University forty mathematicians equal to the Wranglers in the Cambridge Mathematical Tripos, or twenty classical scholars to compare with those who stood first in the Classical Tripos at Cambridge or in the School of *Literæ Humaniores* at Oxford;" and with an equally cheerful indifference to the facts Mr. Lowe replied that the teaching of the Universities was "simply disgraceful." When we add that there was much dispute whether the glories of Lord Macaulay, who was not "a resident fellow of Trinity College, Cambridge," should be credited to that University, and that Sir William Harcourt was delighted to hear that an overworked judge like Sir Alexander Cockburn could find time, in spite of his work, to undertake the arduous office of chairman, which would require the "constant and daily attention of one having entire and absolute leisure," we sum up most of what was interesting and novel in the discussion before going into Committee.

On two questions, however, which are of speculative importance, much incidental light was thrown. The Bill gives large enabling powers to the Commissioners, and

although, as "An Oxford Man" pointed out in *NATURE* (vol. xv., p. 391), it is very doubtful whether large reforms can be effected even on the initiative of a strong-willed and clear-headed Commission; it is perfectly certain that little or nothing can be done if the Commissioners are feeble and without origination. In their preparation of schemes for each of the forty colleges they are to be associated with three residents from the college itself, and it is only from the colleges that they can get money to effect any reforms. It is important therefore to understand what are the views of the Government with regard to the reforms which are practical or possible, because it is to advance these views that the Commissions have been selected. Afterwards, everything depends on the Commissioners themselves, on the spirit in which they have undertaken their task, and on the diligence, ability, and discretion with which they are likely to execute it.

The Opposition offered no formal objection to any of the names proposed by the Government, but they suggested the addition of three names to the Oxford and of two names to the Cambridge list. For Oxford they proposed Prof. Bartholomew Price, Prof. Huxley, and Prof. Max Müller, and for Cambridge Dr. Bateson, the master of St. John's College, and Dr. Hooker, the president of the Royal Society. The addition of these names would have greatly strengthened the Commissions, and those who are anxious to see the Universities question treated in a generous spirit and with a wide knowledge of the subject might have been reasonably hopeful of good results. To our mind it is a fatal objection to the Commissioners as they stand that they include no members who are not alumni of the Universities on which they are to sit. Prof. Huxley and Dr. Hooker would have been of the utmost service, because they would have approached University questions from the point of view of men whose lives have been spent outside the Universities. It is certainly important for the Commissioners to have a practical acquaintance with working details, but that would surely have been sufficiently guaranteed by the presence of nine University men on each Commission even though one outsider had been added to each. Prof. Huxley has sat on the Scotch Universities Commission, and has had the largest experience of teaching at unrestricted institutions like the School of Mines and South Kensington. Dr.

Hooker and he would have strengthened the hands of those who wish to see science represented in our higher education, and the addition of their names would certainly not have upset the balance of the Commission, as Prof. Price, Dr. Bateson, and Prof. Max Müller, would have adequately maintained the interests of the older studies. Surely, when we are setting about the reform of our universities, we want all available information about the systems of foreign countries, and Prof. Max Müller could have told the Commissioners many things they have not learnt from their own experience of Oxford and Cambridge. The refusal of the Government to add any names to the original list was an unfortunate sign of the spirit in which they have framed it, and of the attitude in which the Commissioners will face the problems before them. Ministers were successful, but their majorities were so small as to show that the sense of the few members who will not consent as partisans to vote on such questions was decidedly against them. They carried their point by 11, 34, 24, 26, 32 votes on the successive divisions. After their success nobody will care much what becomes of a bill which is meant to change as little as possible, when every crevice that could let in light from the outside world is carefully stopped against it.

The speech of the Secretary of War, who is Member for the University of Oxford, and the general tone of the debate, clearly confirm these anticipations. There will be a slight restriction of the "prize fellowships," the new Government name for the "idle fellowships" of Lord Salisbury. There will not be a great extension of the professoriate, provision even having been made for the amalgamation of several professorships into one. Some money—5 per cent. from some colleges, 10 per cent. from others, nothing perhaps from a third class—will be taken from the colleges for university purposes. There is a provision "for the extension, not for the suppression," of scholarships. Only the superfluities of the colleges are to go to the University, and Mr. Hardy has never had but one opinion on "what some people called the endowment of research." He did not state that opinion so frankly as Mr. Trevelyan, but there was little doubt from the tone of his remarks that it was substantially the same :—

"It was a mistake, therefore, to assume that we could create in men such qualities by merely endowing old men, and in his opinion it would be better to throw the funds of the Universities into the sea rather than to bestow them in the manner which had been proposed. The people whose prayers the House should listen to were the practical teachers of the University, who were bound to celibacy, and who asked them to make their career a better one, to give them a reasonable income, and to allow them to marry without being compelled to resign their positions. These gentlemen would have six months in the year, which they would be able to devote to the pursuit of science and literature. What they had to do was to find men for the places, and not places for the men. He begged them to consider well before they created a sort of hierarchy of sinecures and semi-sinecures which unless human nature was radically altered by this Bill would only lead to academical jobbery and intellectual stagnation."

No doubt the wholesale conversion of the fellowships of residents and, for that matter, of non-residents into professorships, created in a doctrinaire spirit, and apart from the gradual development of literature and science, would be

recklessness and folly. Nobody in his senses wants such a thing. The real note of despair in the whole debate is that Oxford and Cambridge wish to be let alone, and Oxford and Cambridge men in the House are determined that they shall be let alone to consider every question as it comes up from the mere local point of view of Oxford and Cambridge. The jealous exclusion of outsiders is the surest proof of the intention of the framers of the bill and the clearest prophecy of its issues.

The Committee made no real alterations in the bill. There was a desperate attempt to maim it by striking out even the possibility of endowments for research. It was resisted and defeated by an overwhelming majority. Mr. Hardy said "the noble lord and the hon. gentleman seemed to be under the apprehension that if research were brought into the University education would be driven out. On the contrary, he held that no teaching could be successful that was not founded on the most minute research. There were, no doubt, many subjects of research which by their nature were not lucrative to those who prosecuted them but the prosecution of which was of great importance to education throughout the country, and especially to the University in which they were carried on. There was, however, no intention to carry research to the extravagant lengths which some speakers and writers feared would be the case, and which would utterly pervert the purposes of the University. So far from diminishing the educational power of the University, that which was proposed would give to education a more solid basis than it now possessed." Mr. Trevelyan accepted Mr. Hardy's statement as "in all respects satisfactory," and added a remark none the less valuable that it is almost a truism, "They could not have a University where education was proceeding without research proceeding at the same time." The Commissions will thus be left at liberty to use the funds they can detach from the Colleges for the endowment of research. But "Researchers," as Prof. Sylvester calls them, will not for many years to come, grow very fat on the good things of Oxford and Cambridge.

DEEP WELL-BORINGS IN LONDON

THE constantly increasing wants of our English metropolis were very amply provided for during all the earlier stages of its history by the stores of water contained in the extensive beds of gravel lying within the Thames Valley. These stores of water could be reached by means of shallow wells, and all the ancient and famous pumps of our city drew their supplies from this source.

But, as the population of the district increased, the value of this source of water-supply became greatly impaired from two causes; firstly, the excessive drain upon it, caused by the rapid multiplication of wells; and secondly, the pollution of its waters by the refuse-matter of a great city.

Hence it became necessary to seek for new sources of water-supply, and the success which had already attended the construction of Artesian wells in the Tertiary districts of Northern France, led to attempts being made to obtain supplies in a similar manner by putting down borings through the impervious London Clay into the water-bearing beds of the Lower London Tertiaries.